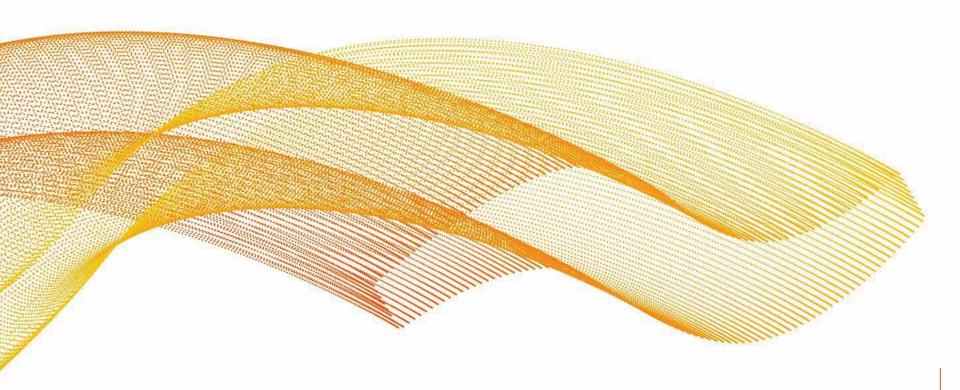
USAID Agency Update



Software and Supply Chain Assurance Winter Forum 2024



Jon Amis

January 24, 2024

Agenda

- Introduction
- Combobulation of C-SCRM
- Evolving Federal Guidance/Requirement & ICT SCRM Program Prioritization
- SCR Illumination Tool Use Cases
- Supply Chain & Supplier Risk Assessments
- Closing Thoughts



Introduction to USAID

- Established with the passage of the Foreign Assistance Act of 1961 and created by executive order from President Kennedy
- JFK recognized the need to unite development into a single agency responsible for administering aid to foreign countries to promote social and economic development.
- USAID's objective is to support partners to become self-reliant and capable of leading their own development journeys. We make progress toward this by
 - reducing the reach of conflict
 - preventing the spread of pandemic disease, and
 - counteracting the drivers of violence, instability, transnational crime and other security threats.
- USAID promotes American prosperity through investments that expand markets for U.S. exports; create a level playing field for U.S. businesses; and support more stable, resilient, and democratic societies. We stand with people when disaster strikes or crisis emerges as the world leader in humanitarian assistance.
- Today, **USAID** staff work in more than 100 countries around the world with the same overarching goals that President Kennedy outlined 50 years ago furthering America's foreign policy interests in expanding democracy and free markets while also extending a helping hand to people struggling to make a better life, recover from a disaster or striving to live in a free and democratic country. It is this caring that stands as a hallmark of the United States around the world.



Introduction to LMI & Jon Amis

- In 1961, Secretary of Defense McNamara sent a memorandum to President Kennedy, advising "that we can achieve major breakthroughs in logistics management, where we spend half of the defense budget, by sponsoring the establishment of a special, full-time organization of highly talented business management specialists." President Kennedy agreed, and three weeks later LMI was born "to bring the best minds to bear on solving our government's most complex logistics management problems. "
- I MI evolved from
 - direct support of the Pentagon to
 - an FFRDC in 1985, to
 - a not-for-profit in 1998, and to
 - a wholly owned for-profit subsidiary in 2020 that
 - separated from its not-for-profit parent in 2022.
- LMI supports more than 40 federal agencies serving health, civilian, defense, and national security missions.
- We provide SCRM and supply chain resilience expertise to multiple agencies, including efforts to establish and mature C-SCRM or ICT SCRM programs for various agency CIOs

- BS in Systems Engineering from USMA, BS and MEng in Industrial Engineering from University of Louisville
- Army veteran (8+ years on active duty)
- 20+ years employment with Dell Technologies, led Dell's Supply Chain Assurance program from its inception in 2010 through 2020.
- Joined LMI in December 2020 as Supply Chain Solutions Principal
- Supporting the USAID O/CIO since Spring 2021 (currently subcontractor under MetaPhase Consulting)
- Actively involved in numerous public-private partnerships, industry associations, and government forums that are focused on supply chain risk management for nearly 15 years



Cyber SCRM (C-SCRM)

Intersection of SCRM and Information Assurance

Supply Chain Risk Management

- Supply chain risks associated with Security, Integrity, Resilience, Quality, Responsibility, etc.
- Life cycle (cradle to grave including maintain and dispose)
- Risk = Threat x Consequence x Likelihood x Vulnerability

Information Assurance

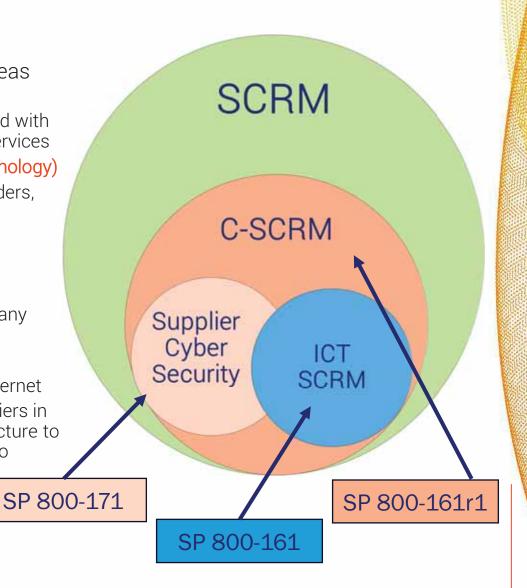
- Confidentiality, Integrity, Availability
- Data at rest, data in motion
- Physical and Digital Information
 - Protecting digital information (Cybersecurity)
 - Classified/sensitive information
 - Intellectual Property
 - Customer Information (PII, PCI, etc.)
 - Protecting networks/systems
 - Firewalls, passwords, encryption, etc.





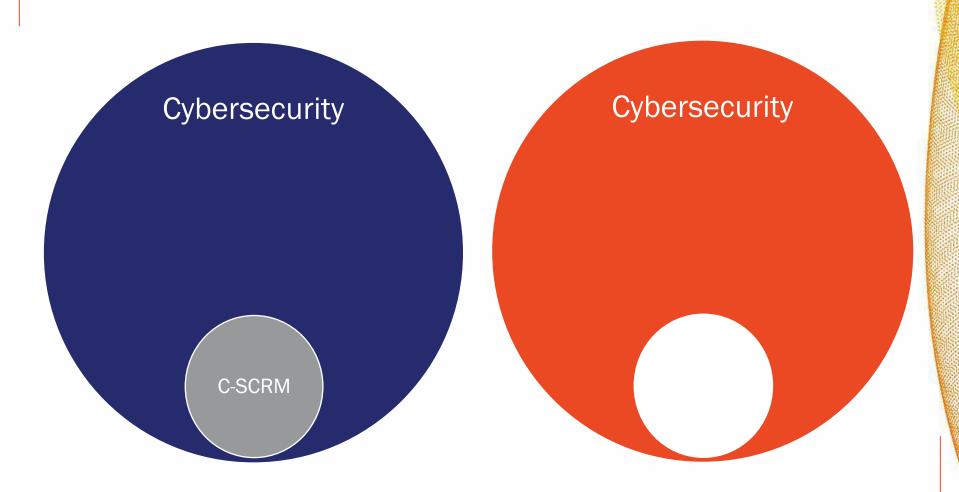
C-SCRM and ICT SCRM

- At least two unique, but related focus areas with C-SCRM
 - Management of supply chain risks associated with "cyber" products (hardware/software) and services
 - ICT (Information and Communication Technology)
 - Computers, phones, internet service providers, cloud providers
 - OT (Operational Technology)
 - Industrial control systems
 - IoT (Internet of Things)
 - Smart appliances, some medical devices, any connected device
 - Any device that stores, uses, or moves data
 - May not ever be directly "connected" to internet
 - Management of cyber security risks of suppliers in any supply chain (especially critical infrastructure to include ICT suppliers, or those with access to sensitive information)





Cybersecurity with & without C-SCRM





Evolving Authorities & Requirements

- 41 U.S. Code § 1326
- <u>SECURE Technology Act</u>, Strengthening and Enhancing Cyber-capabilities by Utilizing Risk Exposure Technology Act, Public Law 115-390
- Federal Information Security Modernization Act of 2014
 - IG FISMA Metrics now include 5 questions on SCRM (12-16)
- Federal Information Technology Acquisition Reform Act (FITARA)
- Committee on National Security Systems. CNSSD No. 505 (U), Supply Chain Risk Management
- Section 889 of the 2019 National Defense Authorization Act
- Federal Acquisition Regulation
- Open FAR Cases (as of 1/12/2024)
- Executive Orders: <u>13873</u>, <u>14017</u>, <u>14028</u>, and <u>14034</u>
- OMB Circular <u>A-130</u> and <u>A-123</u>
- OMB Memorandums M-15-14, M-22-18, M-23-13, and M-23-16
- GAO Report GAO-21-164SU December 2020 (Public version: GAO-21-171)
- NIST SP: 800-53r5 (SEP 2020), 800-161r1 (MAY 2022), 800-171r2 (FEB 2020), 800-218 (FEB 2022); NISTIR 8276 (FEB 2021)
- Quarterly IDC C-SCRM Self-Assessments



C-SCRM FARM Risk Management Framework

FRAME

ASSESS

RESPOND

MONITOR

nterprise

- Define C-SCRM assumptions, constraints, risk appetite/ tolerance, and priorities/tradeoffs,
- Define C-SCRM Governance and Operating Model
- Develop C-SCRM Strategy, Policies, and High-Level Implementation Plan
- Integrate C-SCRM into enterprise risk management

- Refine/enhance organization's C-SCRM Frame
- Assess organization-level cyber supply chain risks based on Frame assumptions and/or analyses completed at Level 2
- Determine cyber supply chain risk exposure of the organization's operations, assets, and individuals
- Make organization decisions to accept, avoid, mitigate, share, and/or transfer risk
- Select, tailor, and implement C-SCRM controls, including common control baselines
- Document C-SCRM controls in POA&Ms
- Integrate C-SCRM into the organization's Continuous Monitoring program
- Monitor and evaluate organization-level assumptions, constraints, risk appetite / tolerance, priorities/tradeoffs and identified risks
- Monitor effectiveness of organization-level risk response

Guidance summary from NIST SP 800-161r1 (Figure G2, pg. 254)

- Tailor organization C-SCRM assumptions, constraints, risk appetite/tolerance, priorities/tradeoffs to the mission/business
- Develop mission/business specific C-SCRM strategies, policies, and implementation plans
- Integrate C-SCRM into mission/business processes

- Refine/enhance criticality assumptions about the mission/business-specific operations, assets, and individuals
- Assess mission/business specific threats, vulnerabilities, likelihoods, and impacts
- Determine cyber supply chain risk exposure of mission /business-specific operations, assets, and individuals

- Make mission/business-level decisions to accept, avoid, mitigate, share, or transfer risk
- Select, tailor, & implement appropriate mission/ businesslevel controls, including common control baselines
- Document C-SCRM controls in POA&Ms
- Integrate C-SCRM into Continuous Monitoring processes and systems
- Monitor and evaluate missionlevel assumptions, constraints, risk appetite / tolerance, priorities/tradeoffs and identified risks
- Monitor effectiveness of missionlevel risk response



Mission/Business Process

- Apply/tailor C-SCRM Framing from Levels 1 and 2 to individual systems in accordance with the RMF outlined in NIST 800-37, Revision 2
- Integrate C-SCRM throughout the
 Spic
- Assess Operational-specific cyber supply chain risks arising from components or services provided through the supply chain in accordance with the RMF outlined in NIST 800-37, Revision 2
- Adopt Operational-specific C-SCRM controls in accordance with the Select, Implement, Assess, and Authorize steps of NIST SP 809-37, Revision 2
- Monitor the system and Operational-level C-SCRM controls in accordance with the Monitor step of RMF outlined in NIST SP 809-37, Revision 2



Prioritization and Focus Areas

GAO Report: 7 Foundational Practices

- establish executive oversight of ICT activities, including designating responsibility for leading agency-wide SCRM activities;
- develop an agency-wide ICT SCRM strategy for providing the organizational context in which risk-based decisions will be made;
- establish an approach to identify and document agency ICT supply chain(s);
- establish a process to conduct agency-wide assessments of ICT supply chain risks that identify, aggregate, and prioritize ICT supply chain risks that are present across the organization;
- establish a process to conduct a SCRM review of a potential supplier that may include reviews of the processes used by suppliers to design, develop, test, implement, verify, deliver, and support ICT products and services;
- develop organizational ICT SCRM requirements for suppliers to ensure that suppliers are adequately addressing risks associated with ICT products and services; and
- develop organizational procedures to detect counterfeit and compromised ICT products prior to their deployment.

IG FISMA Metrics

- To what extent does the organization use an organization wide SCRM strategy to manage the supply chain risks associated with the development, acquisition, maintenance, and disposal of systems, system components, and system services?
- To what extent does the organization use SCRM policies and procedures to manage SCRM activities at all organizational tiers?
- To what extent does the organization ensure that products, system components, systems, and services of external providers are consistent with the organization's cybersecurity and supply chain requirements?
- To what extent does the organization ensure that counterfeit components are detected and prevented from entering the organization's systems?



Agency C-SCRM Blocking and Tackling

LEADERSHIP, ACCOUNTABILITY, & GOVERNANCE:

- Designate Senior Agency Official for SCRM (SAO-SCRM)
- Establish executive-level cross-functional ICT SCRM team connected to Enterprise Risk Management (ERM)

• FRAME:

- Determine agency risk appetite and tolerance relative to ICT SCRM
- Develop & execute ICT SCRM Strategy, Implementation Plan, policies, processes, & procedures throughout organization
- Develop & implement ICT SCRM requirements for suppliers / acquisition requirements (contract language, RFx, evaluation criteria, etc.)

ASSESS:

- Conduct supplier and supply chain risk analyses
- Identify and prioritize risks

RESPOND:

- Limit, avoid, mitigate, accept, or transfer risks
- Threat intelligence sharing

MONITOR:

- Continuous monitoring of supplier and supply chain risks
- Monitor effectiveness of Frame/Assess/Respond measures



Rules before tools: illumination tool use cases

- 1. Identify and document supply chains (key suppliers and their suppliers/connections)
 - Which suppliers are sub-tier suppliers or subcontractors of our key suppliers?
 - How many suppliers/supply chain connections in each tier, how many with high risk?
- 2. Restricted entity identification
 - Which suppliers have connections to restricted entities from Section 889, FCC, Federal Exclusions, etc. that may impact eligibility or national security?
- 3. Identify/quantify risks associated with key suppliers and their supply chains
 - Are there any supply chain risks related to our existing systems and suppliers (e.g., disruptions, financial stability, cybersecurity, geopolitical, FOCI, counterfeits, etc.)?
- 4. Vet potential suppliers for supply chain risks
 - Are there any supply chain risks with potential suppliers that may impact our sourcing decision or result in POA&M to address identified risks?
- 5. Geographic distribution of suppliers
 - Which suppliers are located in the Uyghur region of China where there are human trafficking and forced labor concerns?
 - Which suppliers may be impacted by a natural disaster?
 - Consider corporate headquarters, manufacturing facilities, processing facilities, raw materials processing, distribution/fulfillment centers, etc.
- 6. Continuous monitoring of emerging / evolving threats and incidents
 - Are there any recent commercial cyber breaches or vulnerabilities that might impact us? Any disruptions likely due to a natural disaster?



Supply Chain & Supplier Risk Assessments

- NIST SP 800-161r1 Appendix D&E provides detailed guidance
- Security, integrity, resilience, quality, etc.
- RA-3(1) Supply Chain Risk Assessment: Supply chain-related events include disruption, use of defective components, insertion of counterfeits, theft, malicious development practices, improper delivery practices, and insertion of malicious code...The supply chain-related events may be unintentional or malicious and can occur at any point during the system life cycle.
- SR-6 Supplier Assessments and Reviews ...includes security and supply chain risk management processes, foreign ownership, control or influence (FOCI), and the ability of the supplier to effectively assess subordinate second-tier and third-tier suppliers and contractors...monitor for indications of stolen information, poor development and quality control practices, information spillage, or counterfeits.
- SR-2 SCRM Plan Develop a plan for managing supply chain risks associated with the research and development, design, manufacturing, acquisition, delivery, integration, operations and maintenance, and disposal... Tailored SCRM plans provide the basis for determining whether a technology, service, system component, or system is fit for purpose, and as such, the controls need to be tailored accordingly. Tailored SCRM plans help organizations focus their resources on the most critical mission and business functions based on mission and business requirements and their risk environment. (template provided in NIST SP 800-161r1 Appendix D.3)



Closing thoughts

- C-SCRM requirements are not going away...expectations will continue to increase
 - -Agencies will be held accountable for the maturation of their SCRM Program
 - -Industry will be expected to mature their SCRM Programs and to share more information with government customers
 - -SCRM controls and transparency will be a **sourcing/selection differentiator**
- Multi-lateral information sharing is required to succeed
 - Collaborate and corroborate
- Help is out there for you, if you need it
 - -NIST, ODNI, CISA, GSA all have published guidance
 - -DHS ICT SCRM Task Force
 - -ACT-IAC SCRM Acquisition Workstream
- Your help is needed, if you are willing
- -Actively participate in public-private forums, industry associations and government forums
- -Monitor the Federal Register, RFIs, etc. for opportunities to provide feedback & input
- Diversity of perspective will make future guidance more robust
- -Be a catalyst in your own organization and industry/field of expertise



Thank you!



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The Washington Post